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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,462	10/27/2003	Alexander Krymski	M4065.0979/P979	2941

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DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP  
2101 L Street, NW  
Washington, DC 20037

EXAMINER

NGUYEN, LINH V

ART UNIT PAPER NUMBER

2819

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,462	<b>Applicant(s)</b> KRYMSKI, ALEXANDER	
	<b>Examiner</b> Linh V. Nguyen	<b>Art Unit</b> 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-34, 36-39 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-34 and 36-39 is/are allowed.
- 6) ☒ Claim(s) 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to RCE filed on 3/20/06. Claims 1 – 34, 36 – 39 and 44 are pending on this application.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 44 is rejected under 35 U.S.C. 102(e) as being anticipated by Holberg et al. U.S. patent No. 6,720,999.

Fig. 1 and 2 of Holberg et al. discloses of an imaging system comprising: a pixel array (14), an analog to digital converter circuit (46) that receives analog signals ( $V_{in}$ ) from the pixel array (14) and converts the analog signals to digital signals (output of 46) with a variable level of quantization (Col. 2 lines 38 - 40), said analog to digital convert (46) circuit comprising a linear converter (46, See Fig. 4 for disclosing the linear output of ADC for each range of  $V_{in}$  input), for producing intermediate values (output of 46) from said analog signals ( $V_{in}$ ), and a processing circuit (Fig. 10 [GAIN ADJUST]) that remaps (Fig. 10[13]) value said intermediated values (Fig. 10[10]) produced by said

linear converter (ADC output) using mapping table (SHIP 0, 1, 2, 3; See Col. 9 lines 62 - 65).

***Allowable Subject Matter***

4. Claims 1 – 34, 36 – 39 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 1, 11, and 21, in addition to other elements in each respective claim, the prior art fails to teach or suggest a control circuit for determining the digital word corresponding to the input signal by repeatedly: comparing the magnitude of the input signal with the magnitude of a most recently generated reference voltage of said sequence, incrementing said counter, and causing said ramp generator to generate a new one of said sequence until the magnitude of the most recently generated reference voltage of said sequence exceeds the magnitude of said input signal.

With respect to claims 31 and 36, in addition to other elements in each respective claim, the prior art does not teach a method for A/D conversion comprising: mapping the magnitude to digital word with first and second transfer functions only, mapping exclusively with the first transfer function if the magnitude less than a predetermined threshold; and mapping exclusively with the second transfer function if the magnitude is at least equal to the predetermined threshold.

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With respect to claims 33 and 38, in addition to other elements in each respective claim, the prior arts fail to teach or suggest converter having first and second transfer function wherein said second transfer function maps a set of non-sequential and increasing magnitudes each at least equal to said predetermined threshold to corresponding reference signals in a linear manner.

***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Rexford Barnie can be reached at (571) 272-7492. The fax phone numbers for the organization where this application or proceeding is assigned are (571-273-8300) for regular communications and (571-273-8300) for After Final communications.

5/9/06

Linh Van Nguyen

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LINH NGUYEN  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Linh Nguyen', is written over the printed name and title.